



# Biological Sample Imaging Device

Technology No. 99186

**IP Status:** Issued US Patent; **Application #:** 09/434,027

## Image Detection System for Biological Samples

A biological imaging system has been designed that is comprised of a detector array to collect light emitted from the biological sample within the substrate that is being observed and a holding apparatus, upon which the substrate and biological sample are held. The holding device can maneuver the sample and position it so at least a portion of the light being emitted from the light source comes into contact with the sample thus causing a fluorescence representative of the biological sample to appear. The detector is scanned across the sample and detects multiple images that together make up an image of the entire sample.

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## Biological Imaging Systems

This biological imaging technology is a simple, low-cost device for capturing an image of a biological sample including DNA chips. Other methods of biological imaging samples include DNA chips, protein bands in a one-dimensional or two-dimensional gel and others. These methods require expensive microscopes which limits the use across the broad spectrum of applications. Special training required to properly use these instruments which is another

barrier for conventional use. This technology offers the functionality of other image detection systems but without the intensive training or high costs associated with alternative image detection systems.

#### **FEATURES AND BENEFITS OF IMAGE DETECTION APPARATUS:**

- Offers an alternative to other high-priced image detection systems
- System uses a light source and detection apparatus to produce image of biological sample
- Holding apparatus allows for manipulation of substrate and biological sample

**Phase of Development** A prototype of the Image Detection System has been created and tested.

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